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KNOBBE MARTENS OLSON & BEAR LLP
2040 MAIN STREET
FOURTEENTH FLOOR
IRVINE, CA 92614

EXAMINER	
CHAMPAGNE, DONALD	

ART UNIT	PAPER NUMBER
3622	12

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/850,263	Applicant(s) JACOBI ET AL.	
	Examiner Donald L. Champagne	Art Unit 3622	MW

-- The MAILING DATE of this communication appears on the cover sheet with the c rrespondence address --

Peri d for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 October 2003* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-60* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-60* is/are rejected.

7)☒ Claim(s) *13 and 29* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 May 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Proposed Examiner's Amendment

1. Attorney Ronald J. Schoenbaum agreed in a telephone interview on 22 October 2003 to cancel claims 1-32 and 55-60 by examiner's amendment so that claims 33-54 could be allowed. A review of the proposed allowance resulted in an Office decision to reject claims 33-54, as indicated in the following non-final rejection, para. 21-31. The agreement to cancel claims 1-32 and 55-60 by examiner's amendment is therefore voided, and the last rejection of these claims is repeated below, para. 2-20.

Response to Arguments

2. Applicant's arguments filed with an amendment on 6 January 2003 have been fully considered but they are not persuasive. The arguments are discussed at para. 8 and 9 below.

Claim Objections

3. Claims 13 and 29 are objected to under 37 CFR 1.75 as respectively being substantial duplicates of claims 55 and 58. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Rejections - 35 USC § 102 and 35 USC § 103

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1, 2, 5, 7-9, 14, 15, 17, 18, 21, 23-25, 30 and 31 are rejected under 35 U.S.C. 102(e) as being anticipated by Whiteis (US pat. 5,749,081).

7. Whiteis teaches (independent claims 1 and 17) a method and system for recommending items to users from a database of items, the method comprising: providing a table (*LINKS table **301***) that maps items from the database to respective sets of similar items, wherein the table includes values (*Link Weight **304***) that indicate degrees of similarity between specific items, said values reflecting an automated analysis of historical data (col. 2 lines 2-3) indicating item interests of each of a plurality of users (col. 3 lines 43-51); and identifying multiple items selected by the target user without requiring the target user to explicitly rate items (col. 3 lines 14-15 and 39-42); and selecting similar items (*Result Item **402***) from the table to recommend to the target user such that a determination of whether to recommend a particular similar item takes into consideration a degree to which that similar item is similar to each of the multiple items selected by the target user (the *LinksTo Weight **353***), as indicated by the table (col. 3 lines 52-64).

8. Applicant argues (Remarks, p. 4) that Whiteis does not teach or suggest identifying multiple items selected by the target user "without requiring the target user to explicitly rate items or explicitly create an input list of items". The reference does not teach *rating* items, which always has the connotation of quantification or at least ranking (Merriam-Webster's Collegiate Dictionary).

9. The reference does require that "the user chooses the items he knows he likes from a master list of items". Applicant argues that this constitutes explicitly creating an input list of items, which is expressly precluded by amended claims 1 and 17. But this line of reasoning is not consistent with the specification. The disclosure distinguishes between "explicit" and "implicit" development of lists only by example at p. 12 lines 12-14. There it is disclosed that items added to a shopping cart constitute an implicit, not an explicit, expression of interest.

That is a specie to the reference's genus (para. 11 below). Furthermore, dependent claims 5 and 21 are also species of a reference teaching (para. 10 below). Hence, by the application's examples of what is consistent with claims 1 and 17, the reference selections are implicit, not explicit.

10. The reference also teaches at the citations given above claims 2 and 18; 7 and 23 (inherently, from the similarity definition of *Link Weight **304***); 8, 9, 24 and 25; and 15 and 31 (inherently, because all content is downloadable).

11. The reference also teaches claims 5 and 21 (col. 2 lines 23-26).

12. Claims 3, 4, 6, 10-12, 16, 19, 20, 22, 26-28 and 32 are rejected under 35 U.S.C. 103(a) as being obvious over Whiteis.

13. Whiteis does not teach (claims 3, 4, 10, 19, 20 and 26) an electronic shopping cart. The reference does teach the genus "items that the user chooses, knows he likes, and may want to purchase" (col. 3 lies 14-15 and col. 2 lines 23-26), which would strongly suggest the specie "electronic shopping cart" to one of ordinary skill in the art, at the time of the invention. The reference also does not teach (claims 6 and 22) that the items were selected by the target user through online browsing. Because virtually all shopping entails some browsing, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to add the selection of items by online browsing to the teaching of Whiteis.

14. Whiteis does not teach (claims 11 and 27) not recommending items already purchased. Because there would be no point in recommending items already purchased, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to not recommending items already purchased.

15. Whiteis does not teach (claims 12 and 28) further determining similarity by content analysis of item descriptions. Because content analysis is well known for similarity determination and could provide marginal advantages, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to further determining similarity by content analysis of item descriptions.

16. Whiteis does not teach (claims 16 and 32) that the table is stored as a B-tree data structure. Because it is a well-known structure providing efficient lookup, it would have been obvious

to one of ordinary skill in the art, at the time of the invention, to store the table as a B-tree data structure.

17. Claims 13, 29 and 55-60 are rejected under 35 USC 103(a) as unpatentable over Whiteis in view of Bieganski (US pat. 6,321,221).

18. Whiteis teaches (independent claims 55 and 58 and dependent claims 13 and 29) a method of recommending items to users from a database of items, the method comprising: providing a table (LINKS table 301) that maps items from the database to respective sets of similar items, wherein the table includes values (Link Weight 304) that indicate degrees of similarity between specific items, said values reflecting an automated analysis of historical data (col. 2, lines 2-3) indicating item interests of each of a plurality of users (col. 3, lines 43-51); and using the table to provide personalized item recommendations to each of a plurality of target users, wherein the personalized item recommendations are generated for a target user by at least: identifying multiple items selected by the target user (col. 3, lines 14-15 and 39-42); and selecting similar items (Result Item 402) from the table to recommend to the target user such that a determination of whether to recommend a particular similar item takes into consideration a degree to which that similar item is similar to each of the multiple items selected by the target user (the LinksTo Weight 353), as indicated by the table (col. 3, lines 52-64).

19. Whiteis does not teach that the "personalized item recommendations are generated for a target user *in real time*". Bieganski teaches that the recommendations are returned in real time (col. 7, lines 14-15). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the teachings of Bieganski to Whiteis (i.e., to return the recommendations of Whiteis in real time) in order to improve the response time and to make the system more user friendly in that the customer does not have to wait an inordinate amount of time for a recommendation.

20. Bieganski also teaches claims 56 and 59 (col. 7 lines 6-11) and claims 57 and 60 (col. 17 lines 12-15).

21. Claims 33-46, 48 and 50-54 are rejected under 35 USC 103(a) as unpatentable over Whiteis in view of Rucker et al. (US pat. 6,195,657).

22. Whiteis teaches (independent claim 33) a method for recommending items to users from a database of items and to a target user, comprising: for at least one type of user action which evidences a user's interest in an item, maintaining, for each of a plurality of users, a history of the items for which the at least one type of action was performed by the user, to thereby generate a plurality of user-specific histories (col. 3 lines 2-4); in an off-line processing mode, generating a table (*LINKS table* ***301***) that maps each of a plurality of items from the database to a respective set of similar items, wherein generating the table comprises determining, for each of multiple item pairs, a frequency (*Link Weight* ***304***) with which both items of the pair occur within a same user-specific history of the plurality of user-specific histories (col. 3 lines 43-51); and providing recommendations to a target user by at least (a) identifying multiple items selected by the target user (col. 3 lines 14-15 and 39-42.

23. Whiteis does not teach providing recommendations to a target user by at least (b) selecting additional items to recommend based at least in part on whether an additional item is similar to more than one of the items selected by the target user. Rucker et al. teaches selecting additional items to recommend based at least in part on whether an additional item is similar to more than one of the items selected by the target user (Abstract, col. 2 lines 43-46 and col. 11 lines 54-55 and 62-63. Because Rucker et al. teaches that this harnesses the user's own intuition as to the appropriate grouping (col. 2 lines 43-46), it would have been obvious to one of ordinary skill in the art, at the time of the invention, to add the teachings of Rucker et al. to those of Whiteis.

24. Neither reference teaches (independent claim 48) an electronic shopping cart. Whiteis does teach the genus "items that the user chooses, knows he likes, and may want to purchase" (col. 3 lies 14-15 and col. 2 lines 23-26), which would strongly suggest the specie "electronic shopping cart" to one of ordinary skill in the art, at the time of the invention. Dependent claims 36, 41, 42 and 53 are also obvious for the same reason.

25. Whiteis also teaches at the citations given above claims 34; 40 and 50 (inherently, from the similarity definition of *Link Weight* ***304***); 46 (inherently, because all content is downloadable) and 51.

26. Whiteis also teaches claims 35 and 43 (col. 2 lines 23-26) and claim 45 (col. 1 line 34).

27. Neither reference teaches (claims 38 and 44) that the items were selected by the target user through online browsing. Because virtually all shopping entails some browsing, it would

have been obvious to one of ordinary skill in the art, at the time of the invention, to add the selection of items by online browsing to the teaching of Whiteis.

28. Neither reference teaches (claims 37 and 54) not recommending items already purchased. Because there would be no point in recommending items already purchased, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to not recommending items already purchased.

29. Neither reference teaches (claims 39 and 52) further determining similarity by content analysis of item descriptions. Because content analysis is well known for similarity determination and could provide marginal advantages, it would have been obvious to one of ordinary skill in the art, at the time of the invention, to further determining similarity by content analysis of item descriptions.

30. Claims 47 and 49 are rejected under 35 USC 103(a) as unpatentable over Whiteis in view of Rucker et al. and further in view of Bieganski.

31. Neither Whiteis nor Rucker et al. teach that recommendations are provided *instantly* or *in real time*". Bieganski teaches that the recommendations are returned in real time (col. 7, lines 14-15). It would have been obvious to one of ordinary skill in the art at the time of the invention to add the teachings of Bieganski to Whiteis and Rucker et al. (i.e., to return the recommendations of Whiteis in real time) in order to improve the response time and to make the system more user friendly in that the customer does not have to wait an inordinate amount of time for a recommendation.

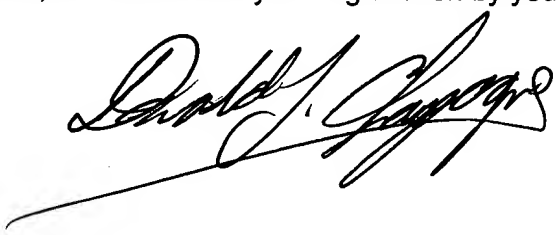
Conclusion

32. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donald L. Champagne whose telephone number is 703-308-3331. The examiner can normally be reached from 6:30 AM to 5 PM ET, Monday to Thursday. The examiner can also be contacted by e-mail at donald.champagne@uspto.gov, and *informal* fax communications (i.e., communications not to be made of record) may be sent directly to the examiner at 703-746-5536.

33. The examiner's supervisor, Eric Stamber, can be reached on 703-305-8469. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-

9306. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5771.

34. **ABANDONMENT** – If examiner cannot by telephone verify applicant's intent to continue prosecution, the application is subject to abandonment six months after mailing of the last Office action. The agent, attorney or applicant point of contact is responsible for assuring that the Office has their telephone number. Agents and attorneys may verify their registration information including telephone number at the Office's web site, www.uspto.gov. At the top of the home page, click on Site Index. Then click on Agent & Attorney Roster in the alphabetic list, and search for your registration by your name or number.



Donald L. Champagne
Examiner
Art Unit 3622

31 January 2004